

## CLAIMS

The invention claimed is:

1. A wireless network for transferring a signal from a source device to a destination device positioned remotely from the source device by passing the signal through a plurality of intermediate devices without using a tower, the network comprising:
  - a plurality of intermediate transceivers associated with the intermediate devices and individually operable for reproducing the signal and transmitting the reproduced signal through the intermediate devices until the reproduced signal reaches the destination device;
  - a source transceiver associated with the source device and operable for transmitting the signal to at least one of the intermediate devices; and
  - a destination transceiver associated with the destination device and operable for receiving the reproduced signal from at least one of the intermediate devices.
2. The network of Claim 1 wherein the source device further comprises a routing system for generating a routing scheme that enables effective signal transfer from the source device through a first portion of the intermediate devices to the destination device.
3. The network of Claim 2 wherein the source transceiver transmits the routing scheme and the signal to the intermediate device.
4. The network of Claim 2 wherein the routing system further comprises a data management system.
5. The network of Claim 1 wherein the source device is selected from the group consisting of telephones, mobile phones, laptop computers, handheld computers, desktop computers, televisions, and automobiles.
6. The network of Claim 1 wherein one of the intermediate devices disconnects from a first portion of the network and reconnects to a second portion of the network.

7. The network of Claim 1 further comprising a long-range transmission device for connecting the network to a remote network.
8. A wireless network for transferring a signal from a source device to a destination device positioned remotely from the source device by passing the signal through a plurality of intermediate devices without using a tower, the network comprising:
- 5 a plurality of intermediate transceivers associated with the intermediate devices and individually operable for reproducing the signal and transmitting the reproduced signal through the intermediate devices until it reaches the destination device;
- 10 a routing system for identifying a routing scheme that enables effective signal transfer from the source device to the destination device;
- a source transceiver associated with the source device, wherein the source transceiver is operable for transmitting the routing scheme and the signal to at least one of the intermediate devices; and
- 15 a destination transceiver associated with the source device and operable for receiving the reproduced signal from at least one of the intermediate devices.
9. The network of Claim 9 wherein the routing system further comprises a data management system.
- 20 10. The network of Claim 9 wherein the source device is selected from the group consisting of telephones, mobile phones, laptop computers, handheld computers, desktop computers, televisions, and automobiles.
11. The network of Claim 9 wherein one of the intermediate devices disconnects from a first portion of the network and reconnects to a second portion of the network.
- 25 12. The network of Claim 9 further comprising a long-range transmission device for connecting the network to a remote network.

13.A method of transferring a signal from a source device to a destination device positioned remotely from the source device by passing the signal through a plurality of intermediate devices forming a wireless network without a tower, the method comprising:

5 reproducing the signal using a plurality of intermediate transceivers associated with the intermediate devices;

transmitting the reproduced signal through the intermediate devices until the reproduced signal reaches the destination device;

10 identifying a routing scheme that enables effective transfer of the reproduced signal from the source device to the destination device;

jointly transmitting the routing scheme and the reproduced signal to at least one of the intermediate devices using a source transceiver; and

receiving the reproduced signal from the intermediate device.

15 14.A computer readable medium storing computer-executable instructions for performing the method of Claim 13.

15.A wireless network operable for performing the method of Claim 13.

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